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## The Perception of Crisis by Greek SMEs and Its Impact on Managerial Practices

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### Abstract

Although there are many definitions, crises are considered as unusual events that threaten basic structures, introduce high uncertainty and impose time pressures in decision making. In the field of business and management, a substantial body of research has been produced on corporate crisis preparedness and response; however, empirical evidence on the impact of crisis on Small and Medium sized Enterprises is limited. Companies have different levels of vulnerability according to their economic standing and positioning in the market. In addition, perceived uncertainty which influences managers' actions does not always coincide with actual environmental uncertainty. The purpose of this study is, focusing on a sample of Greek companies operating in various economic sectors, to present a preliminary investigation on the impact of crisis on the choice of managerial practices, innovation and formalization. The financial strength and competitive advantage of companies as well as managers' perceptions regarding environmental uncertainty and expectations about the future of the crisis will be presented since they have been found to influence understanding and shape courses of action.

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*Keywords:* economic crisis; SMEs; perceived uncertainty

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### 1. Introduction

The prolonged economic crisis has dramatically changed business environment threatening basic structures and fundamental norms, introducing high uncertainty and imposing time pressures in decision making (Rosenthal et al.,

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1989). Although crisis affects all sectors of business activity, Small and Medium sized Enterprises (SMEs) are considered more vulnerable compared to large enterprises since they lack, in comparison, the management mechanisms, the manpower, the material and the financial resources to deal with such unexpected events. However, SMEs are considered important in promoting national economic and social development since they employ more than half of the labor force in the private sector and, especially in the European Union, they account for over 99 % of all enterprises (OECD, 2009). Despite their significance, empirical evidence on the impact of the crisis on Small and Medium sized Enterprises is limited due to lack of data comparability as a result of firm size diversity, business life-cycle, etc.

The way companies respond to crisis is dissimilar, conditional to their vulnerability prior to its eruption, which refers to their economic standing and positioning in the market. Thus, according to their need for external financial support and competitive advantage along the dimensions of cost, product/brand positioning, technology/capabilities, leadership/management as well as the ability to influence/collaborate with regulatory authorities, companies exhibit different levels of vulnerability which affects their reaction (Heckmann et al., 2009).

Nonetheless, decisions on appropriate courses of action are influenced not only by internal factors, but also by external factors such as environmental uncertainty which in periods of destabilizing events is expected to increase. Environmental uncertainty refers to the unpredictability of various factors that affect business performance such as market, competitors, customers, suppliers and governmental regulations and policies (Porter, 1980). Smircich and Stubbard (1985) state that the environment can be represented as a set of events and relationships between them, which are perceived and understood through certain cognitive strategies affecting business strategy and decisions. Managers seem to form an image of the environment and respond to that image rather than to the objective environment (Weick, 1969). Therefore, it is important to distinguish perceived uncertainty from actual uncertainty, an issue that has received quite some attention in the literature over the years, since the way managers perceive certain attributes influence their response. Especially in turbulent periods, where events fall out of known probability distributions and new narratives are elicited (Nelson & Katzenstein, 2014) decision makers rely on their subjective constructs to form a vision of future events and guide their actions.

As crisis unfolds, uncertainty increases. Although each crisis is unique, evidence suggests that it consists of four different and distinct phases (Darling et al., 2005): prodromal crisis stage, or else the warning stage, acute crisis stage, where crisis is erupting, chronic crisis stage, in which the consequences are evident and affect the company as a whole, and, finally, the crisis resolution state, where business achieve a new “normality”. Each stage is characterized by different levels of uncertainty and requires different procedures that would enable a company to cope with; so, manager’s recognition/perception of crisis stage is considered to affect the choice of appropriate strategies.

This study focuses on managers’ perceptions regarding environmental uncertainty and expectations about the future of the crisis rather than actual uncertainty since the physical attributes of the environment are not necessarily effective as criteria of environmental uncertainty, (Subramaniam et al., 2011). In addition, the comparison of perceptions of uncertainty before and after the outbreak of crisis will provide evidence on the impact of crisis on managerial perceptions.

Research has shown that there is a strong relationship between environmental uncertainty, innovation and formalization. In volatile environments, organizations tend to formalize procedures as the use of standardized rules and processes helps in reducing environmental uncertainty and provides a sense of stability. Although formalization and the use of controls it entails has often thought to hinder innovation, studies show that in fact formalization may lead to innovation, product development and entrepreneurship (Davila et al., 2009). It seems that formalization helps in the creation of stable frameworks that facilitate communication among team members and circulation of new information and promotes, through the imposed structures, the transformation of new ideas into actual designs therefore fostering innovation. And the more turbulent an environment is, the higher the need for innovation to remain competitive and survive (Miller, 1987).

The purpose of this study is, focusing on a sample of Greek manufacturing companies operating in the food sector, to present a preliminary investigation on the impact of crisis on the choice of managerial practices, innovation and formalization. The financial strength and competitive advantage of companies as well as managers’ perceptions regarding environmental uncertainty and expectations about the future of the crisis will be presented since they have been found to influence understanding and shape courses of action.

## 2. Research Method

Since this is an exploratory study and in order to examine the perception of crisis by managers of SMEs and its impact on managerial practices a qualitative, in-depth case study-oriented research design was used. First level managers (CEO) or head of departments from eight (8) Greek firms participated in the study. All firms were food manufacturing firms in the confectionary industry producing sugar, chocolate as well as baker sweets. Since firm size and age can be considered as moderating variables, four of the firms were small with less than 20 employees and four firms were medium sized with 70-100 employees, while all firms were old firms operating for more than 40 years in the Attica region.

Data were collected between May and June 2014, in two stages: in the first stage participants were asked to fill out a structured questionnaire and in the second stage, through interviews, their answers were explained and elaborated on. All interviews were tape-recorded and transcribed. The reason for the use of the structured questionnaire was to facilitate data comparability and to ensure coverage of all issues as it served as guide for the interview. In addition, the use of Likert-type scales in most of the questions in combination with the analysis of transcripts, helped in the interpretation of results avoiding misunderstandings.

The data collection focused on perceived environmental uncertainty, company vulnerability prior to crisis and SMEs' reaction to crisis. Perceived uncertainty was measured by asking respondents to evaluate uncertainty on five key sectors of the external environment, identified also in earlier works (Duncan, 1972; Miles & Snow, 1978) namely market, competitors, customers, suppliers and government before and after the outbreak of crisis, in order to examine its impact, using a five-point scale ranging from high to low uncertainty. Because perceptions of uncertainty were considered to be affected by managers' views regarding the end of crisis, managers were asked to identify the current crisis stage they believe the economy is in. Vulnerability was assessed partly using the classification proposed by Heckmann et al (2009), which emphasizes financial strength and competitive advantage. Managers were asked to evaluate their companies along the dimensions of cost, product/brand positioning, technology/capabilities, leadership/management as well as the ability to influence/collaborate with regulatory authorities. Company preparedness was also measured, as part of vulnerability, since having strategies for coping with unexpected events could minimize their impact.

## 3. Results and Discussion

In addressing the impact of crisis on perceived uncertainty, two measures of environmental uncertainty were obtained and compared: pre-crisis and after crisis. Before the outbreak of the crisis most managers reported that levels of uncertainty were perceived as medium to low in all measured parameters, although the answers of the managers of smaller firms centered on the middle of the scale. After the outbreak of the crisis, most managers reported an increase in uncertainty in all categories comprising environmental uncertainty, although the increase reported by managers of medium sized firms was slightly lower. More specifically, the sample mean value ( $\bar{x}$ ) of the compound measure of uncertainty increased from 2,8 before the crisis to 3,9 after the crisis according to the perceptions of managers in small firms, while for their counterparts in medium sized firms increased from 2,4 to 3,1 (in the five point scale used in this study, "1" signified low levels of uncertainty and "5" high levels of perceived uncertainty).

It is noteworthy that highest levels of uncertainty were not reported by managers in any sector of the external environment, either before or after the outbreak of the crisis, possibly indicating a tolerance for ambiguity. Although the environment is considered more threatening after the crisis, uncertainty was not considered as high enough as to disrupt their ability to make decisions. It seems that the managers of SMEs were used in coping with adverse conditions and environmental pressures exhibiting entrepreneurial behavior. In addition, certain firm characteristics seemed to mitigate uncertainty perceptions such as the family ownership of the firm and organizational structure. Kinship ties seem to play an important role in the reduction of risk and uncertainty through the facilitation of decision making (Colli, 2013). The centralized organizational structure of family firms and the fact that a family CEOs was usually surrounded by family members in top management positions enhanced the flexibility of decision

making process, necessary under high uncertainty conditions, and provided a sense of stability through the long-term orientation and commitment of their members.

The parameters that were considered as most contributing to uncertainty before crisis were government ( $\bar{x} = 4,0$  for small firms,  $\bar{x} = 3,3$  for larger firms) and customers ( $\bar{x} = 3,33$  for small firms,  $\bar{x} = 2,6$  for larger firms). Post crisis, government and competitors were perceived as major sources of uncertainty. Uncertainty about governmental decisions increased to  $\bar{x} = 4,0$  for larger firms and remained high ( $\bar{x} = 4,23$ ) for smaller firms, while uncertainty about competitors increased from  $\bar{x} = 3,0$  to  $\bar{x} = 4,0$  for smaller firms and from  $\bar{x} = 2,3$  to  $\bar{x} = 3,5$  for larger firms.

Government is considered traditionally to contribute to the unpredictability of the environment through the constant changes in policies concerning financial issues and taxation, as well as through imposing new regulations on the food sector. Thus, it could also be considered as industry specific uncertainty, since the introduction of certification standards and rules regarding production process, quality and safety issues require constant changes to meet the requirements, which affect the operation of firms in this sensitive sector and result in increased levels of uncertainty.

The shift in perceptions of uncertainty to competitors from customers, as was the case before crisis, might indicate that information about the behavior and needs of their customers was considered important in shaping managerial decisions pre-crisis. The consumer perspective has been recognized as a contributing success factor in the food industry (Frewer et al., 2005) and efforts have been centered on the understanding of consumers' motives, perceptions and attitudes. Consumers' concerns on food quality and dietary information enhanced by media publicity on food-borne illness on one hand and lifestyle considerations on the other are affecting purchasing and consumption patterns. So, information on customers' preferences was considered critical in predicting product demand. However, today, it's the unpredictability of the actions of managers from existing firms as well as potential entrants that are considered important. Being a mature market, the emphasis is usually placed on the standardization of production processes that could result in increased efficiency, lowering this way production costs, and on the specialization that could increase quality focusing on nutritional and taste qualities. Thus, competition is fierce on both cost and quality and the globalization of the economy with the potential entry of foreign firms threatens not only the product demand, but the actual survival of Greek SMEs increasing the level of uncertainty in this parameter. Nevertheless, one of the managers of a medium sized firm reported lower level of market uncertainty after the outbreak of the crisis and the reasons he gave was that his firm was capitalizing on the good name and quality of the products as well as on sound organizational structure, suggesting that in economic downturns, trust in internal resources moderates uncertainty as it provides a solid basis for company surviving and provides a greater scope for opportunity seeking.

Regarding managers' views on the sequencing of crisis, most participants reported that we are now experiencing the third and most severe stage in which the consequences are evident and affect their company as a whole. Still, out of the eight participants, two managers of medium sized firms believed that the worst of the crisis is over and that we are now facing the last stages of the crisis. But, there were not observed any notable differences in the reported levels of uncertainty or pursued managerial strategies based on these perceptions.

With regards to company vulnerability prior to crisis, most medium sized companies were considered "strong" since they reportedly performed better than their competitors on at least three (3) dimensions and were not in need of external financial support, ranking high in competitiveness, accordingly. Small firms were considered "stable" since although their competitiveness was similar to that of their competitors, they needed no immediate external financial support. Similar responses were obtained regarding company preparedness to respond to crisis: medium sized companies reported better levels of preparedness than smaller companies. Though, the analysis of transcripts reveal that by preparedness managers did not actually mean the existence of formal policies to guide their responses during unexpected events, but rather the internal strengths that enable companies to cope with crisis. These strengths included product quality, organizational structure and trust in the management team.

Uncertainty and financing difficulties brought by the financial crisis have led to downturn in demand and shortage of working capital due to increased payment delays and tightening of credit conditions by banks. Managers of SMEs pursued a variety of strategies to maintain the existence of their companies. However, strategies were not the same for small and medium sized firms. Only two strategies, namely the introduction of standardized rules and procedures and closer monitoring of companies operations as well as re-examination of contract terms and conditions with suppliers as part of the effort to reduce costs without endangering quality were common among the two groups. Formalization emerged as a priority among all managers since the introduction of formal policies was regarded as a means to provide timely and accurate information facilitating control and coordination of company

operations under unstable conditions. In addition, it was thought that through formalization the margin for mistakes was minimized, employees were better informed about what was expected of them and their performance was better monitored. Medium sized firms emphasized also utilization of new technologies, product differentiation, company extroversion, and internal reorganization, while withdrew from non-profitable activities. Small firms focus on improving product quality and collaboration with other entrepreneurs. Therefore, it seemed that under condition of high uncertainty medium sized firms seek new opportunities and change production processes and products adapting to the new conditions, exhibiting a more innovative approach, while small firms emphasize internal reorganization and networking in an effort to reduce uncertainty and improve competitiveness and survival. Networking between smaller firms included not only the formation of communication and information networks, but also the supply of goods and services to meet conditions of limited resources or urgent demand.

Regarding managers' choices on saving strategies it was evident that both groups were on a continuous struggle to cut costs, yet all managers reported that they were not inclined to reduce permanent staff. A possible explanation could be that the firms in tighter position were the small companies, but they were all family businesses and there is evidence that manager-owners of small firms, especially when they are family owned, recognize the moral nature of a situation and the effect that their decisions or actions could have in affecting the interests and welfare of others, refraining consequently from acting in a way that could be harmful (Vyakarnam et al., 1997).

#### 4. Conclusion

Using data from eight case studies of Greek SMEs the current study sought to explore the impact of crisis on managers' perceptions of uncertainty and the extent according to which innovation and formalization were associated with perceived environmental uncertainty and turbulent environments in the small business sector.

The level of uncertainty in SMEs is considered to be higher, especially among manufacturing firms due to larger resource commitment, (Brouthers, et al., 2002). But, there is no extensive literature on the impact of crisis on SMEs partly because of the diversity of the firms in this sector. SMEs do not constitute a homogenous mass and this was evident even among the small sample of firms that participated in this study. Managers' views on environmental uncertainty, company vulnerability and strategies selected were different depending on the size of the company. Managers of medium sized firms reported lower levels of perceived uncertainty before and after the outbreak of the crisis in comparison to managers from smaller firms. This could be attributed to their reportedly higher competitiveness and stronger financial position before the crisis. However, perceptions of uncertainty in general did not seem to increase proportionally to the size of the crisis that the country is experiencing and was evident in participants' comments regarding the sequencing of the crisis. Although most of the managers stated that we are now experiencing the third and most severe stage of the crisis, perceptions of uncertainty never reached the highest level. Two are the possible explanations: either that uncertainty is an inherent characteristic of the environment of SMEs and they have devised ways to circumvent it through an outstanding capacity to adapt or that the food sector is not as gravely affected by the crisis (Food and Agricultural Organization, 2010).

Regarding formalization, the findings of this study suggest positive associations with perceived uncertainty replicating results of previous studies in the small business sector also. As uncertainty increases, sample companies irrespective of size, emphasized processes and structures that point to more systematic task execution and provide a sense of security that all necessary information has been considered in decision making so as to minimize the margin of errors. It seems that formalization facilitated control and coordination (Vlaar, et al., 2006) and helped managers to focus on strategies, structures and processes that were likely to improve organizational performance. As uncertainty increased, after the outbreak of crisis, formalization helped in sense-making through a more thorough and consistent issue coverage (Mintzberg, 1994), that allowed reflection on the causes of observed outcomes (Katz & Kahn, 1978), assisting in understanding the rapidly changing environment and ensuring that all factors have been considered, including risks.

Regarding innovation, a positive association with uncertainty was found only in medium sized firms. Although literature studies show that environmental uncertainty necessitates SMEs to change and adapt in order to ensure their market position and seek new opportunities through product and technological innovations, (Freel, 2005, Trivellas 2012), it seems that such an approach requires resources that smaller companies lack. In responding to uncertainty, smaller firms placed more emphasis on internal reorganization and the formation of domestic networks that facilitated informal cooperation with other enterprises, a trend that has also been observed in the literature (Babakus,

2006). On the other hand, it could be argued that this cooperation between small firms is a form of innovation as it is a new practice, a new organizational structure not within company departments but between companies helping, with the use of a *puzzle-kind* approach, in the creation of stronger entities that can cope with current crisis.

Nevertheless, due to the small size of the sample, further research is needed to better explore the indications presented in this study. In addition, measurements of pre-crisis perceived uncertainty relied on present evaluations and as a result, one might be tempted to argue that this evaluation might reflect time bias since it is assessed under the light of the current conditions. However, since this study focused on perceptions, the reported differences provided an interesting base of comparison.

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